

heatilator[®]

The first name in fireplaces

Heatilator Inc.
1915 W. Saunders Street
Mt. Pleasant, IA 52641
a HON INDUSTRIES company



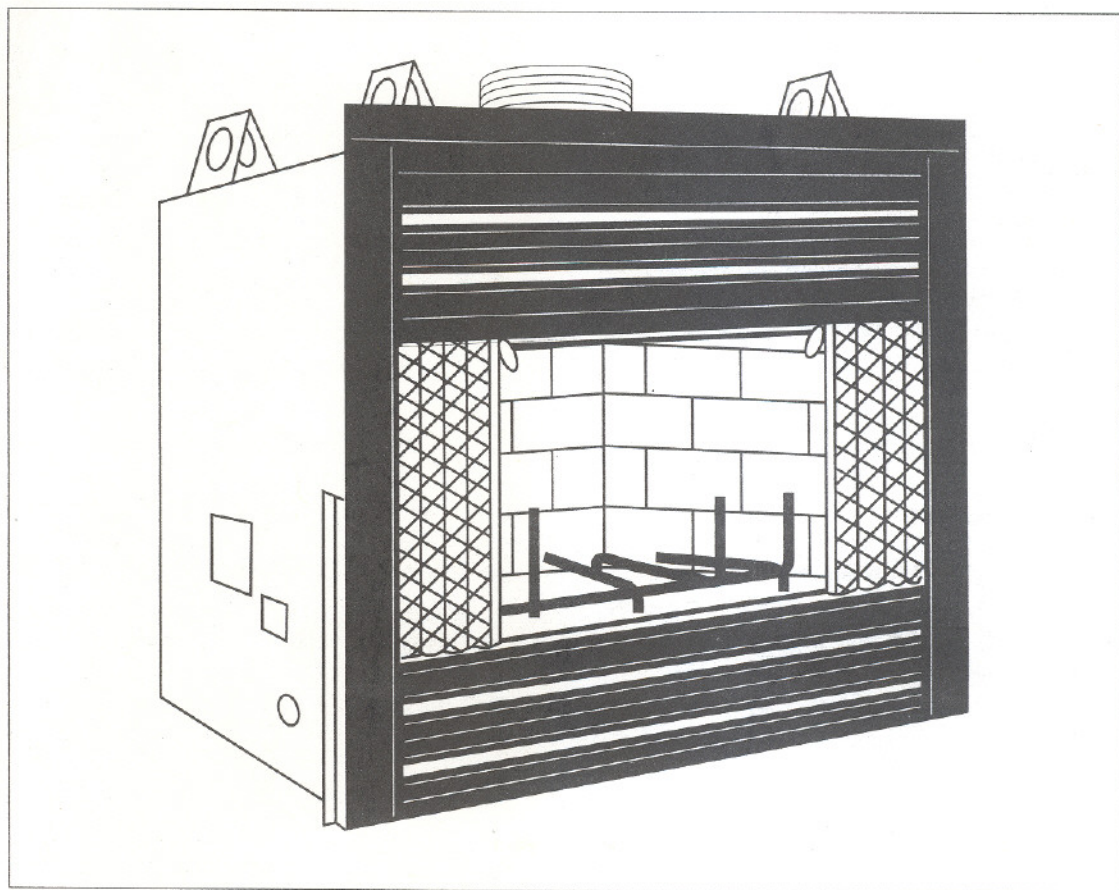
DX42AI

WOODBURNING FIREPLACE

INSTALLATION & OPERATING

INSTRUCTIONS

FOR RESIDENTIAL USE



DX42AI

PLEASE RETAIN THIS MANUAL FOR FUTURE REFERENCE.

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Safety Precautions

1. Please read these installation instructions completely before beginning installation procedures. Failure to follow them could cause a fireplace malfunction resulting in serious injury and/or property damage.
2. Always check your local building codes prior to installation. The installation must comply with all local, regional, state and national codes and regulations.
3. An adequate supply of replacement combustion air from outside the house must be available to the fire for the fireplace to operate properly. To achieve this, the use of an optional outside air kit is highly recommended.

 In the event the home is unusually tight, the optional combustion air kit may not provide all the air required to support combustion. Heatilator is not responsible for any smoking or related problems that may result from the lack of adequate combustion air. It is the responsibility of the builder/contractor to ensure that adequate combustion air has been provided for the fireplace.
4. The DX42AI woodburning fireplace must be installed with the SL400 Series chimney system.
5. The chimney system must always terminate outside the building. Be sure to follow all chimney specifications given in these installation instructions.
5. NEVER leave children unattended when there is a fire burning in the fireplace.
6. This fireplace is built for solid fuel only. DO NOT use chimney cleaners or flame colorants in your fireplace.
7. NEVER use gasoline, gasoline type lantern fuel, kerosene, charcoal lighter fluid, or similar liquids in this fireplace. Keep any flammable liquids a safe distance from the fireplace.
8. The flue damper must be open at all times when the fireplace is in use.
9. While servicing this fireplace, always shut off any electricity or gas to the fireplace. This will prevent possible electrical shock or burns. Also, make sure the unit is completely cooled before servicing.
10. To ensure a safe fireplace system and to prevent the buildup of soot and creosote, inspect and clean the fireplace and chimney prior to use and periodically during the burning season.



LISTINGS AND CODE APPROVALS

The DX42AI fireplace system has been tested and listed to the UL127 Standard and the ULC S610 Standard for Factory-Built Fireplaces by Underwriters Laboratories Inc. This fireplace system has been listed for installation and operation as described in these installation & Operating Instructions.

The model DX42AI fireplace has been tested and listed for use with the components given on page 4. These components may be purchased separately and installed at a later date. However, installation of the outside air kit will require significant reconstruction, and be installed at the time of the initial fireplace

installation.

Check with your local building code agency prior to installing this fireplace to ensure compliance with local codes, including the need for permits and follow-up inspections. If any assistance is required during installation, please contact your local dealer or the Heatilator Customer Relations Department, 1915 W. Saunders Street, Mt. Pleasant, Iowa 52641.

HEATILATOR® is a registered trademark of Heatilator Inc., a HON INDUSTRIES company.

WARNING

THIS HEATILATOR FIREPLACE AND ITS COMPONENTS ARE DESIGNED TO BE INSTALLED AND OPERATED AS A SYSTEM. ANY ALTERATION TO OR SUBSTITUTION FOR ITEMS IN THIS SYSTEM, UNLESS ALLOWED BY THESE INSTALLATION INSTRUCTIONS, WILL VOID THE UNDERWRITERS LABORATORIES LISTING AND MAY VOID THE PRODUCT WARRANTY. IT MAY ALSO CREATE A HAZARDOUS INSTALLATION. READ THROUGH THESE INSTRUCTIONS THOROUGHLY BEFORE STARTING YOUR INSTALLATION AND FOLLOW THEM CAREFULLY THROUGHOUT YOUR PROJECT.

DESCRIPTION OF THE FIREPLACE SYSTEM

The HEATILATOR® fireplace system consists of the following:

1. Fireplace/Integral Grate
2. Chimney Terminal Cap
3. Hearth Extension
4. Chimney System

Optional components include:

1. Glass Doors
2. Outside Air Kit System
3. Heat Circulating Fans

NOTE: Illustrations throughout these instructions reflect "typical installations" and are for design purposes only. Actual installation may vary slightly due to individual design preferences. However, minimum and maximum clearances must be maintained at all times.

The illustrations and diagrams used throughout these installation instructions are not drawn to scale.

Tools and Building Supplies Normally Required

Tools

Saw
 Pliers
 Hammer
 Phillips screwdriver
 Tape measure
 Plumb line
 Leveler
 Electrical drill and bits
 Square

Building Supplies

Hearth extension material
 Wall-finishing materials
 Framing material
 Fireplace surround
 Caulking material



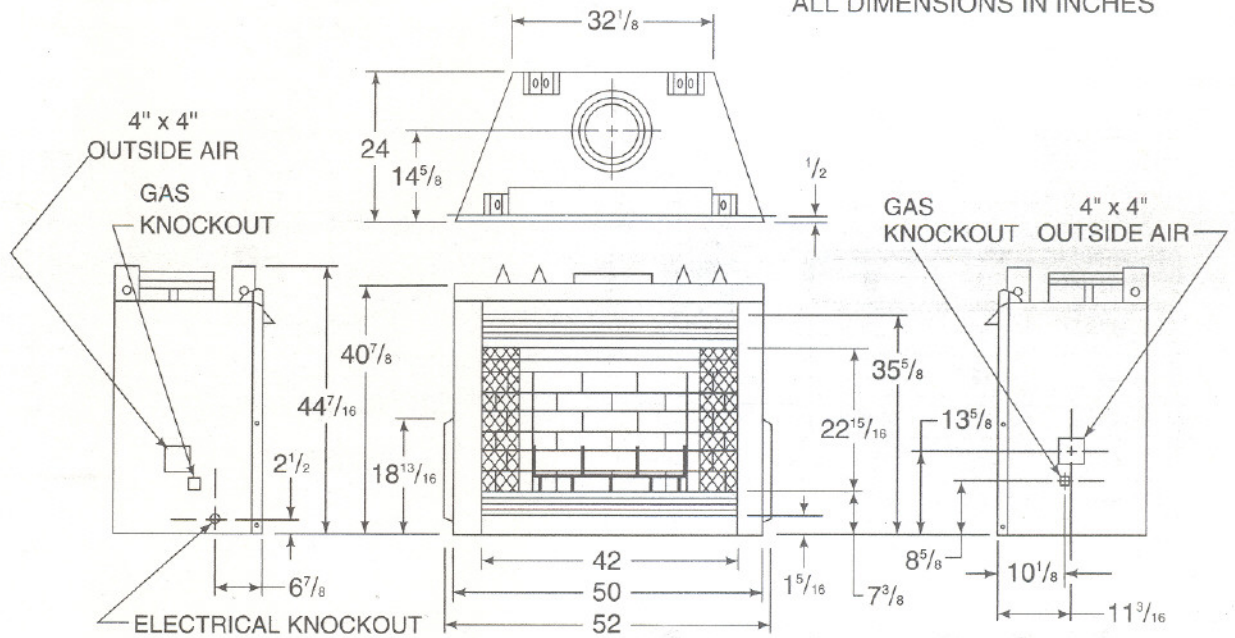
FIREPLACE SYSTEM COMPONENTS

The table below shows only those components which may be safely used with this fireplace.

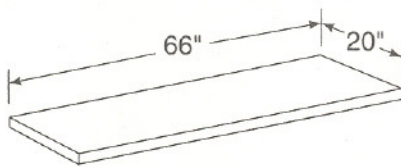
Catalog Number	Description
DX42AI	Fireplace (Insulated Outer Shell) includes integral grate and hearth protection strips
HX4	Hearth Extension
DM1242	Original Glass Doors - Bifold - Black Finish
DM1242A	Original Glass Doors - Bifold - Brushed Brass Finish
DM1242B	Original Glass Doors - Bifold - Polished Brass Finish
C1242A	Classic Bifold Glass Doors - Brushed Brass Finish
C1242B	Classic Bifold Glass Doors - Polished Brass Finish
C1242C	Classic Bifold Glass Doors - Chrome Finish
C2242A	Classic Cabinet Glass Doors - Brushed Brass Finish
C2242B	Classic Cabinet Glass Doors - Polished Brass Finish
C2242C	Classic Cabinet Glass Doors - Chrome Finish
P1242B	Premium Series Bi-fold Glass Doors - Polished Brass Finish
TK401B	Polished Brass Trim Kit (5 bars, 1 hood)
TK7CA	Classic style brushed brass louvre trim kit
TK7CB	Classic style brushed brass louvre trim kit
TK7CC	Classic style brushed brass louvre trim kit
GR12	Integral Grate (included with Fireplace)
FK6	Fan Kit
BC10	Motor Speed Control Kit
AK17U	Outside Air Kit
ID4	Insulated Duct/Outside Air
UD4	Uninsulated Duct/Outside Air
CAK5	Chimney Air Kit - United States
SL406	Chimney Section - 6 inch long
SL412	Chimney Section - 12 inch long
SL418	Chimney Section - 18 inch long
SL424	Chimney Section - 24 inch long
SL442	Chimney Section - 42 inch long
SL448	Chimney Section - 48 inch long
SL4	Chimney Stabilizer
SL430	Chimney Offset/Return - 30°
FS538	Firestop - Straight
FS540	Firestop - 30°
AS10	SL400 Straight Attic Insulation Shield, 24"
JB577	Chimney Joint Band
CB576	Chimney Bracket
RF570	Roof Flashing - Flat to 6/12 Pitch
RF571	Roof Flashing - 6/12 to 12/12 Pitch
TR442	Telescoping Chimney Terminal Cap - Round
TR444	Chimney Terminal Cap - Round (Storm collar included)
TS344	10" I.D. SL300 Square Termination
SK44	Square Termination Decorative Skirt
CT56	Chase Top



ALL DIMENSIONS IN INCHES

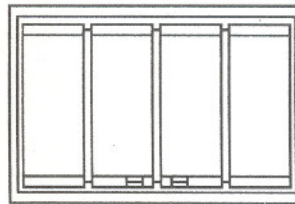


HEARTH EXTENSION

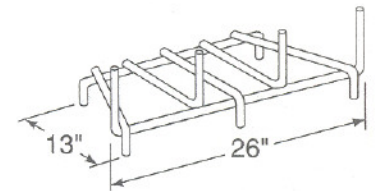


HX4

GLASS DOORS

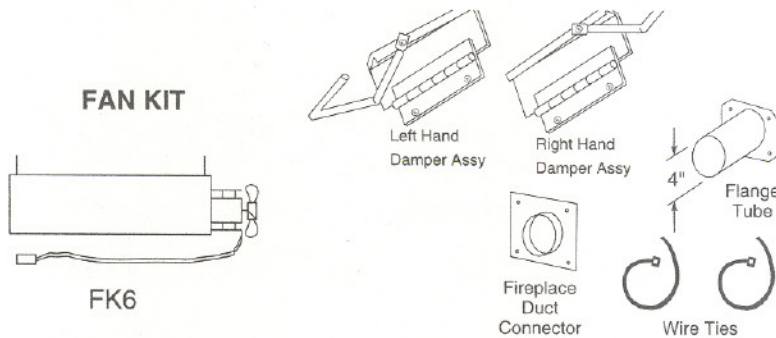


INTEGRAL GRATE

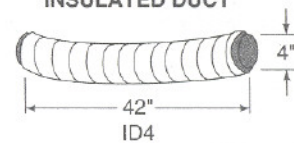


GR12

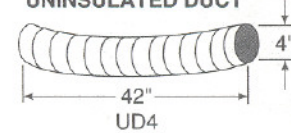
OUTSIDE AIR KIT



INSULATED DUCT



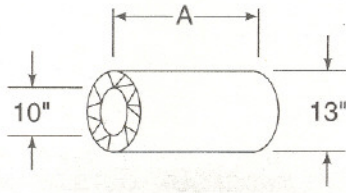
UNINSULATED DUCT



AK17



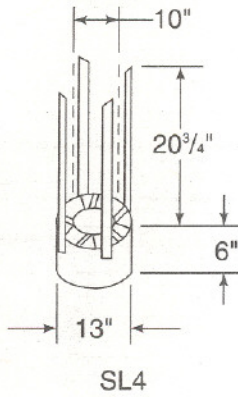
CHIMNEY SECTIONS



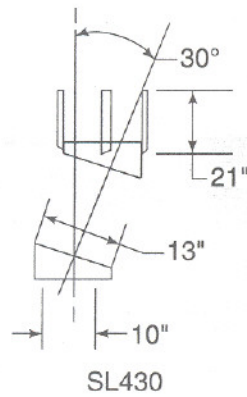
CAT. NO.	A	B
SL406	6"	4 ³ / ₄ "
SL412	12"	10 ³ / ₄ "
SL418	18"	16 ³ / ₄ "
SL436	36"	34 ³ / ₄ "
SL448	48"	46 ³ / ₄ "

A= Actual length
B= Effective length (length of chimney part after it has been snapped to another)

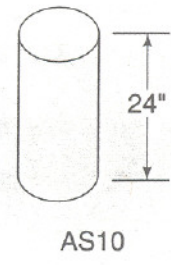
CHIMNEY STABILIZER



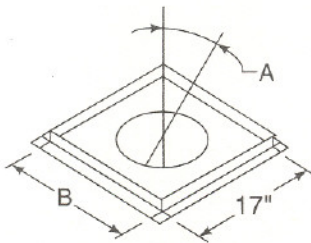
OFFSETS RETURNS



STRAIGHT ATTIC INSULATION SHIELD

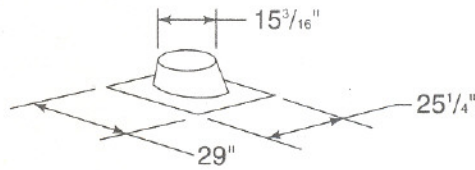


FIRESTOP SPACERS

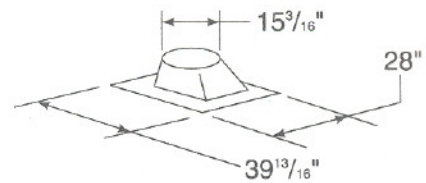


CAT. NO.	A	B
FS538	0°	17"
FS540	30°	26"

ROOF FLASHINGS

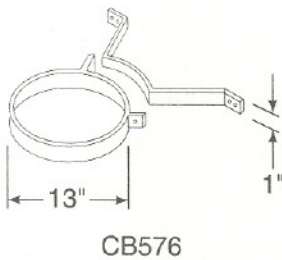


Flat to 6/12 Pitch
RF570



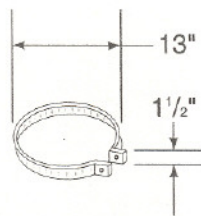
6/12 to 12/12 Pitch
RF571

CHIMNEY BRACKET



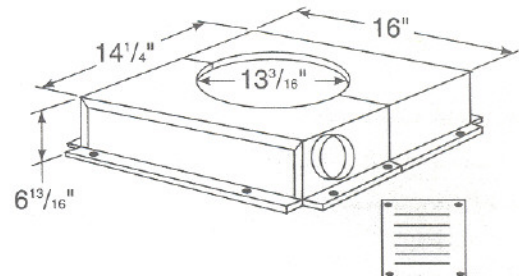
CB576

JOINT BAND

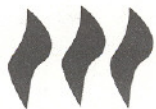


JB577

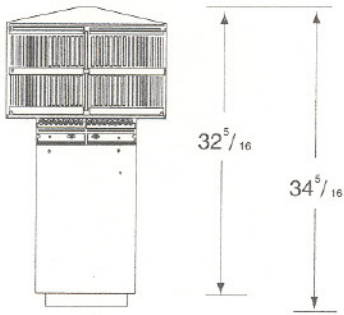
CHIMNEY AIR KIT



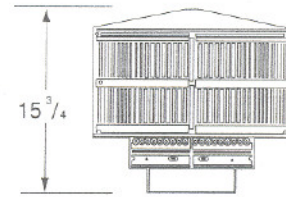
CAK5 - United States
CAK2 - Canada



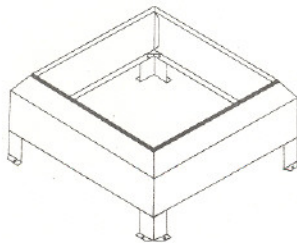
CHIMNEY TERMINAL CAPS & VENT SECTIONS



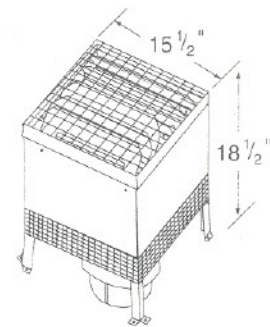
TR442
ROUND TERMINAL CAP



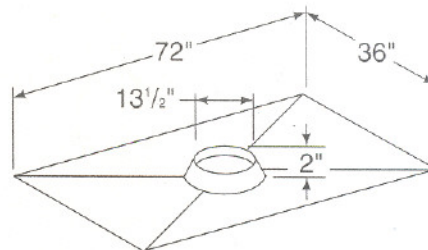
TR444
ROUND TERMINAL CAP
WITH STORM COLLAR



SK44
SQUARE TERMINATION DECO-
RATIVE SHROUD



TS444
SQUARE TERMINATION



CT56
CHASE TOP



PRE-INSTALLATION PREPARATION

FIREPLACE LOCATIONS AND SPACE REQUIREMENTS

Several options are available to you when choosing a location for your fireplace. This fireplace may be used

as a room divider, installed along a wall, across a corner or use an exterior chase. See Figure 1.

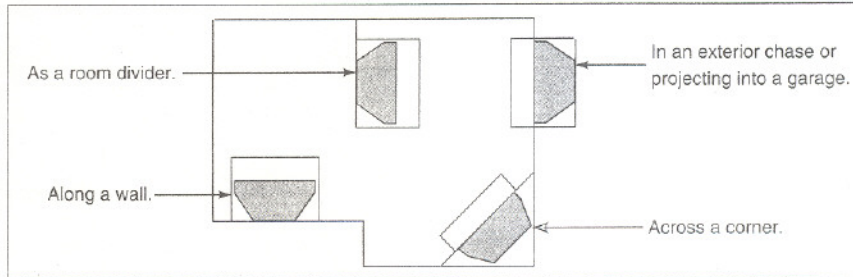


Figure 1
Fireplace Locations

Figures 2 and 3 show two typical installations assuming an outside air kit is being used. Therefore, an allowance must be made for 90° bends. Less space is

required when ducting goes directly outside without forming elbows.

* A minimum of 3/4" air clearance must be maintained between the firebox and wall.

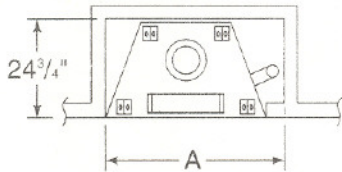


Figure 2
Installation along a wall or an exterior chase.

OUTSIDE AIR	A
WITHOUT	50 1/8"
WITH *	56 1/8"

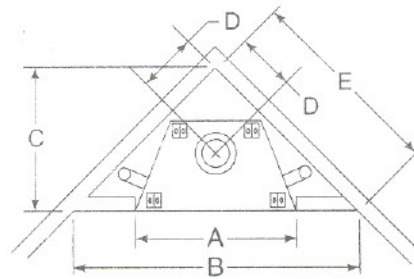


Figure 3
Corner Installation

OUTSIDE AIR	A	B	C	D	E
WITHOUT	50 1/8"	82 1/4"	41 1/8"	18 3/4"	58 3/16"
WITH	50 1/8"	83 3/8"	41 13/16"	19 1/4"	59 1/8"

* Add additional 6" if dual outside air kits are installed.

WARNING

DO NOT DRAW OUTSIDE AIR FROM GARAGE SPACES. EXHAUST PRODUCTS OF GASOLINE ENGINES ARE HAZARDOUS.

DO NOT INSTALL OUTSIDE AIR DUCTS SUCH THAT THE AIR MAY BE DRAWN FROM ATTIC SPACES, BASEMENTS OR ABOVE THE ROOFING WHERE OTHER HEATING APPLIANCES OR FANS AND CHIMNEYS EXHAUST OR UTILIZE AIR. THESE PRECAUTIONS WILL REDUCE THE POSSIBILITY FOR SMOKING OR FLOW REVERSAL.

WARNING

TO PREVENT CONTACT WITH SAGGING OR LOOSE INSULATION, THE FIREPLACE MUST NOT BE INSTALLED AGAINST VAPOR BARRIERS OR EXPOSED INSULATION. LOCALIZED OVERHEATING COULD OCCUR AND A FIRE COULD RESULT.



FRAMING THE FIREPLACE

The DX42AI fireplace will fit a framed opening of 51" wide x 44½" tall. The finished cavity depth must be no less than 24¾".

Figure 4 shows a typical framing (using 2 x 4 lumber) of the fireplace, assuming combustible materials are used. All required clearances to combustibles around

the fireplace must be adhered to. Any framing on top of the fireplace must be above the top standoffs. A ¾" air clearance must be maintained at the back and sides of the firebox assembly. Chimney Sections **at any level** require a two inch minimum air space clearance between the framing and chimney section.

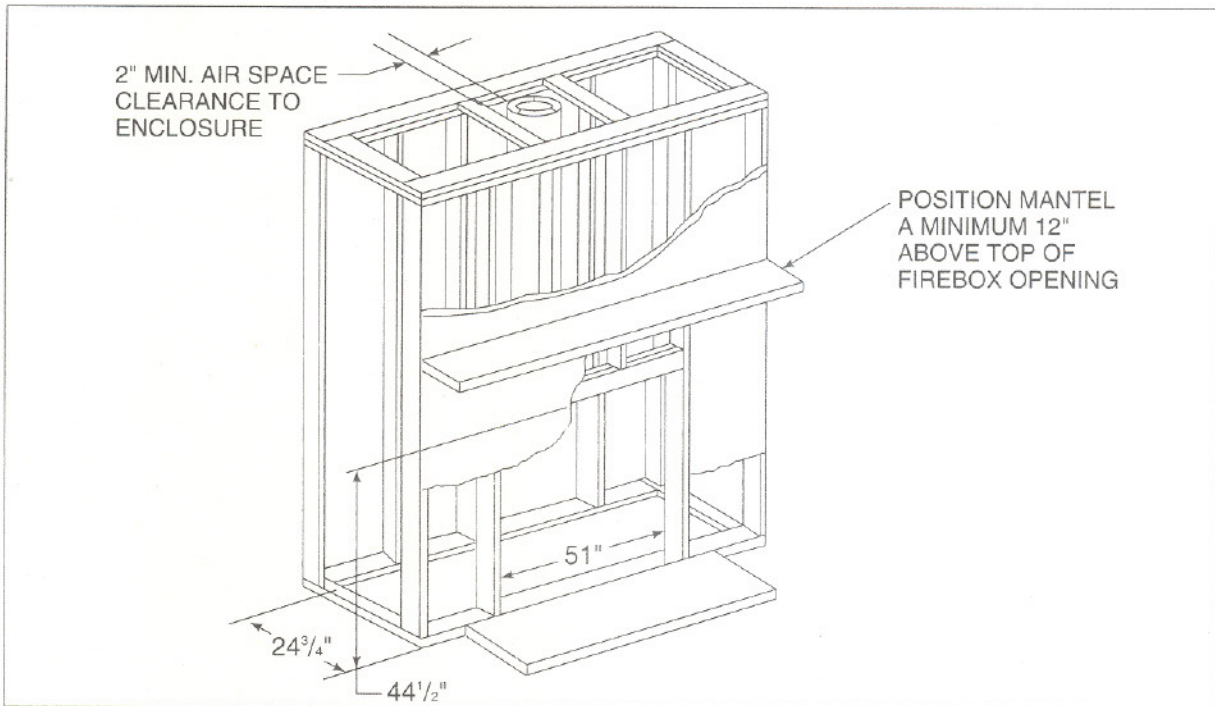


Figure 4
Framing the Fireplace

Combustible Material. Material made of or surfaced with wood, compressed paper, plant fibers, plastics, or any material capable of igniting and burning, whether flame proofed or not, plastered or unplastered.

Non-combustible Material. Material which will not ignite and burn. Such materials are those consisting entirely of steel, iron, brick, tile, concrete, slate, glass or plasters, or combination thereof.

Non-combustible Sealant Material. Sealants that will not ignite and burn; General Electric RTV103

(Black), or equivalent. Rutland, Inc. Fireplace Mortar #63, or equivalent.

After completing the framing and applying the facing material (dry wall) over the framing, a non-combustible sealant, one-half inch wide maximum, must be used to close off any gaps at the top and sides between the fireplace and facing to ensure adequate insulation.

Only non-combustible materials may be used to cover the non-louvered portion of the black metal fireplace front.

WARNING

DO NOT APPLY COMBUSTIBLE FINISHING MATERIALS OVER ANY PART OF THE BLACK METAL FACE OF THIS FIREPLACE OR A STRUCTURE FIRE MAY RESULT. THE NON-LOUVERED BLACK METAL FACE MAY ONLY BE COVERED WITH NON-COMBUSTIBLE MATERIALS.



HEARTH EXTENSIONS

A hearth extension must be installed with all fireplaces. It is to protect the combustible floor in front of the fireplace from both radiant heat and sparks.

The construction of and materials used for a factory-built hearth extension are shown in Figure 5. A hearth

extension of this construction may be covered with any non-combustible decorative material and may have a maximum thickness of 1⁵/₁₆". Seal gaps between the hearth extension and the front of the fireplace with a non-combustible sealant.

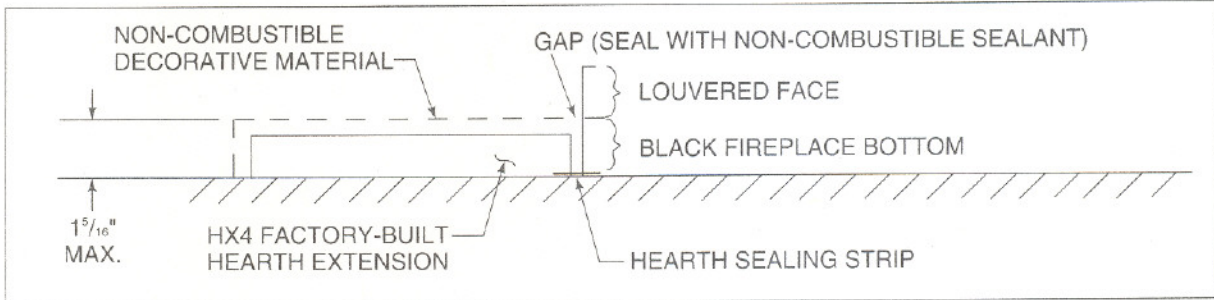


Figure 5
Factory-Built Hearth Extension

Field constructed Hearth Extensions should be constructed in accordance with Figure 6 instructions. In all cases of field construction, the hearth extension must extend a minimum of 20" to the front and extend 12" on

either side of the fireplace opening. Gaps between the hearth extension and front of the fireplace must be sealed with a non-combustible sealant.

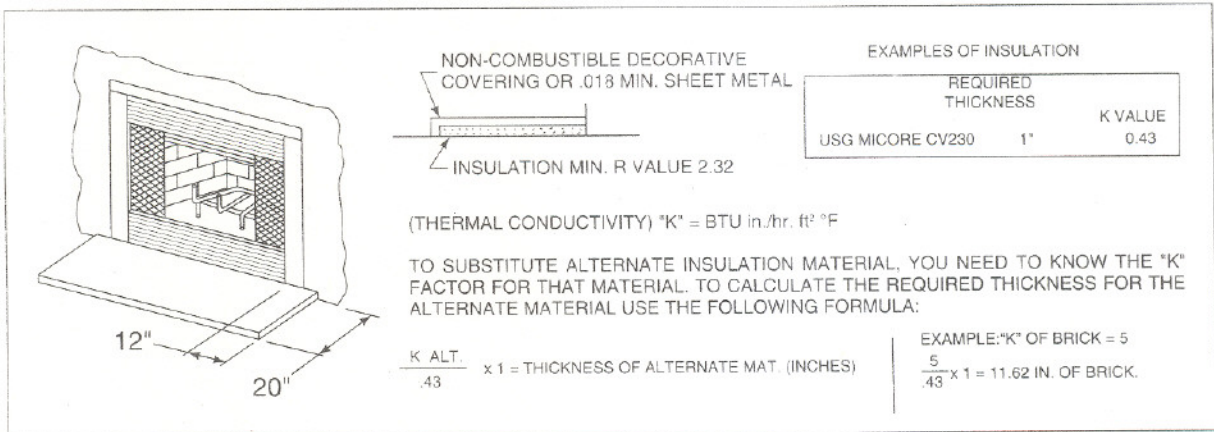


Figure 6
Hearth Extension

WARNING

HEARTH EXTENSIONS ARE TO BE INSTALLED ONLY AS ILLUSTRATED TO PREVENT HIGH TEMPERATURES FROM OCCURRING ON CONCEALED COMBUSTIBLE MATERIALS. HEARTH SEALING STRIPS PREVENT BURNING OR HOT PARTICLES FROM INADVERTENTLY FALLING DIRECTLY ON COMBUSTIBLE SURFACES IN THE EVENT THE BUILDING SHOULD SETTLE AND DISTURB THE ORIGINAL CONSTRUCTION.



SIDEWALLS/SURROUNDS

Adjacent combustible side walls must be located a minimum of 24" from the fireplace opening. See Figure 7. If you are using a decorative surround constructed of combustible material, it must be located

within the shaded area defined in Figure 7. Short stub walls are also acceptable if they are contained within the shaded area.

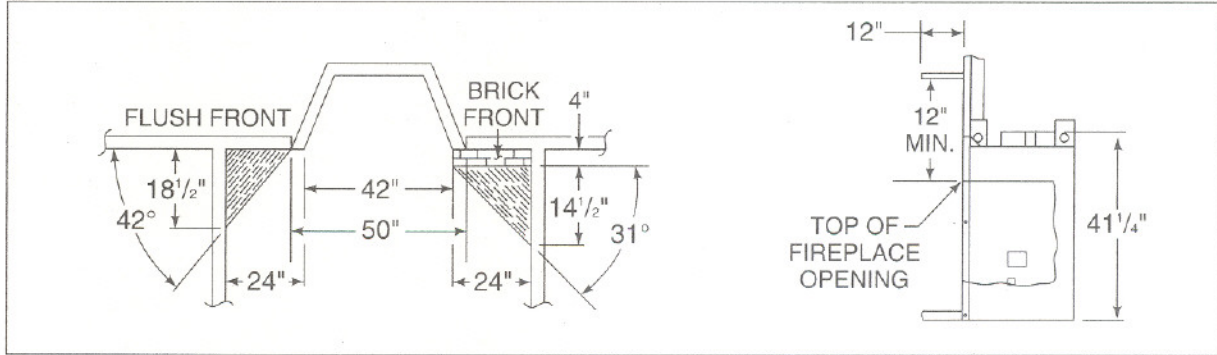


Figure 7
Sidewalls/Surrounds

MANTEL

A mantel of combustible material may be installed no less than 12" above the opening of the firebox. The mantel may extend no more than 12" from the wall. Decorative combustible materials, such as a surround

or mantel support brackets may be located within the shaded area on each side of the firebox, as defined in Figure 7.

CHIMNEY REQUIREMENTS

When planning your fireplace location, the chimney construction and necessary clearances must be considered. The fireplace system and chimney components have been tested to provide the following flexibility in construction. The following figures are the minimum distances from the base of the unit.

Minimum overall straight height	14 ft.
Minimum height with Offset/Return	14.5 ft.
Maximum height	90 ft.
Maximum chimney length between an Offset/Return	8 ft.
Maximum distance between Chimney Stabilizers	35 ft.
Double Offset/Return minimum height	20 ft.
Maximum unsupported chimney length between Offset/Return	6 ft.
Maximum straight unsupported chimney height above firebox	25 ft.

USING OFFSETS AND RETURNS

To bypass any overhead obstructions, the chimney may be offset using a 30° offset/return (SL430). Perform the following steps to determine the correct chimney component combination for your particular installation.

An offset and return may be attached together or a chimney section(s) may be used between an offset and return. However, the distance between two elbows must never exceed 10 feet in total length.

1. Measure how far the chimney needs to be shifted to enable it to avoid the overhead obstacle. See Figure 8, dimension "A".

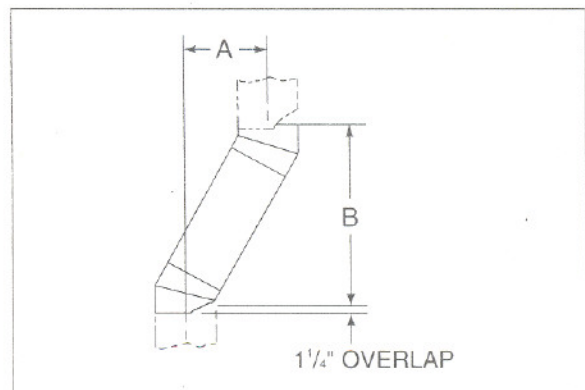
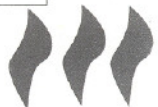


Figure 8
Chimney Offset/Return



2. After determining the offset dimension, refer to Table 1 and find the "A" dimension closest to **but not less than** the distance of shift needed for your installation.
3. The "B" dimensions that coincides with the "A" dimensions represent the required vertical clearance that is needed to complete the offset and return.
4. Read across the chart and find the number of chimney sections required and the model number of those particular chimney parts.
5. Whenever the chimney penetrates a floor/ceiling, a firestop spacer must be installed.

Example: Your "A" dimension from Figure 8 is 14½". Using Table 1, the dimension closest to but not less

than 14½" is 14¾" using a 30° offset/return. It is then determined from the table that you would need 33⅙" (Dimension "B") between the offset and return. The chimney components that best fit your application are two SL412's.

CAUTION

IN THE UNITED STATES, DO NOT COMBINE OFFSETS TO CREATE AN OFFSET GREATER THAN 30° FROM VERTICAL. IN CANADA, DO NOT COMBINE OFFSETS TO CREATE AN OFFSET GREATER THAN 45° FROM VERTICAL.

TABLE 1

30° Offset Chart*

(Dimensions in inches)

A	B	SL406	SL412	SL418	SL436	SL448
3¾	14⅞	—	—	—	—	—
6¾	18⅞	1	—	—	—	—
9¾	23¾	—	1	—	—	—
12¾	28⅞	—	—	1	—	—
14¾	33⅞	—	2	—	—	—
17¾	38¾	—	1	1	—	—
21¾	44⅞	—	—	—	1	—
23¾	48⅞	1	—	—	1	—
27¾	55¾	—	—	—	—	1
29¾	59⅞	1	—	—	—	1
32¾	64¾	—	1	—	—	1
35¾	69⅞	—	—	1	—	1
38	73⅞	—	2	—	—	1
41	78¾	—	1	1	—	1
44¾	85⅞	—	—	—	1	1
47	89¾	1	—	—	1	1
50¾	95⅞	—	—	—	—	2



*Proper assembly of air cooled chimney parts result in an overlap at chimney joints of 1¼". Effective length is built into this chart.

CHIMNEY HEIGHT REQUIREMENTS (Above the roof line)

Major building codes specify a minimum chimney height above the roof top. These specifications are summarized in what is known as the "Ten Foot Rule". This rule states:

If the horizontal distance from the side of the chimney to the peak of the roof is 10 feet or less, the top of the chimney must be at least 2 feet above the peak of the roof, but never less than 3 feet in overall height above the highest point where it passes through the roof. See Figure 9.

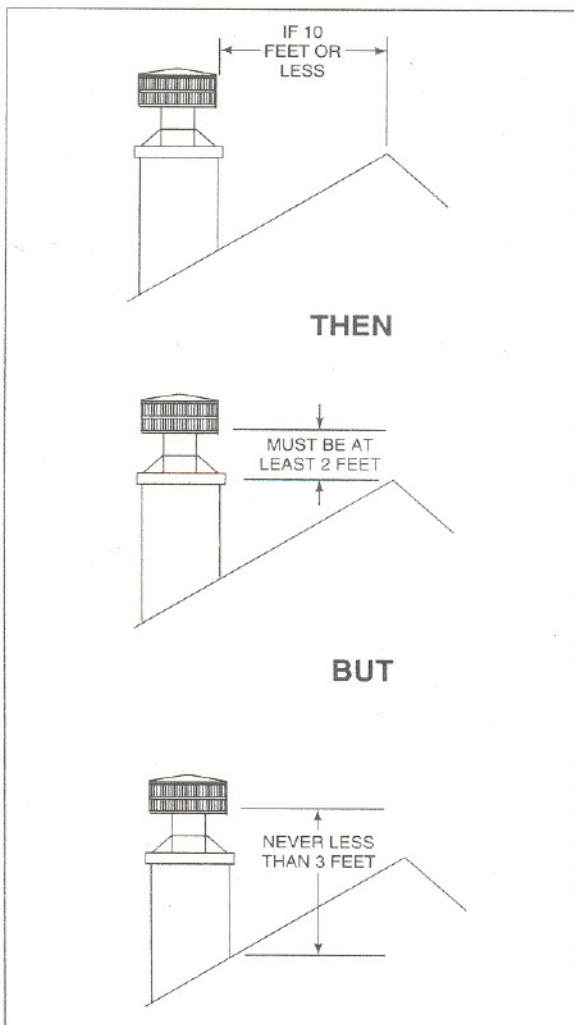


Figure 9
Chimney Height

If the horizontal distance from the side of the chimney to the peak of the roof is more than 10 feet, a chimney height reference point is established on the surface of the roof a distance of 10 feet from the side of the chimney in a horizontal plane. The top of the

chimney must be at least 2 feet above this reference point, but never less than 3 feet in height above the highest point where it passes through the roof.

These chimney heights are necessary in the interest of safety and do not ensure smoke-free operation. Trees, buildings, steeply pitched roofs, adjoining roof lines, adverse wind conditions, etc., may create a need for a taller chimney should smoking occur.

DETERMINING THE NUMBER OF CHIMNEY SECTIONS REQUIRED

To determine the number of chimney components needed to complete your particular installation, follow the below steps:

1. Determine the total vertical height of the fireplace installation. This dimension is measured from the base of the firebox assembly to the point where the smoke exits the terminal cap.
2. Subtract the height of the firebox assembly (41 $\frac{1}{4}$ ") from the overall height of the fireplace installation. See Figure 7 (page 11).
3. Reference the below chart to determine what components must be selected to complete the fireplace installation.
4. Determine the number of firestop spacers, stabilizers, roof flashing, etc., required to complete the fireplace installation.

Height of Chimney Components	
Chimney Stabilizer SL4	4 $\frac{3}{4}$ "
Firestop Spacers FS538	0
FS540	0
Offset>Returns SL430	14 $\frac{1}{8}$ "
Roof Flashings RF570	0
RF571	0
Chimney Sections*	
SL406	4 $\frac{3}{4}$ "
SL412	10 $\frac{3}{4}$ "
SL418	16 $\frac{3}{4}$ "
SL436	34 $\frac{3}{4}$ "
SL448	46 $\frac{3}{4}$ "

*Dimensions reflect effective height.



STEP-BY-STEP INSTALLATION OF THE FIREPLACE SYSTEM

WARNING

BEFORE STARTING, DO THE FOLLOWING:

1. WEAR GLOVES AND SAFETY GLASSES FOR PROTECTION.
2. KEEP HAND TOOLS IN GOOD CONDITION. SHARPEN CUTTING EDGES AND MAKE SURE TOOL HANDLES ARE SECURE.
3. ALWAYS MAINTAIN THE MINIMUM AIR SPACE REQUIRED TO THE ENCLOSURE TO PREVENT FIRE.

STEP 1 - Positioning the fireplace

This fireplace may be placed on either a combustible or non-combustible continuous surface. Follow the instructions for framing on page 9. Be sure to provide the minimum 3/4" air clearance at the sides and back of the firebox assembly.

STEP 2 - Placing the protective metal hearth strips

Included with your fireplace you will find two metal hearth strips measuring approximately 23" x 4". These strips are used to provide added protection where the fireplace and hearth extension meet.

Slide the metal strips two inches under the front edge of the fireplace. The individual pieces must overlap each other by one inch in the middle of the fireplace to provide continuous coverage of the floor. See Figure

10. These metal strips should extend from the front and sides of the fireplace by 2".

STEP 3 - Leveling the fireplace

Level the fireplace side-to-side and front-to-back. Shim with non-combustible material, such as sheet metal, as necessary.

Important: To ensure proper fit of the glass doors, check the firebox opening for squareness. Measure diagonal distances of the opening to make sure they are equal. If they do not equal, continue to shim the firebox until those diagonals correspond.

Secure the fireplace by utilizing the nailing flanges located on either side of the fireplace to the vertical framing.

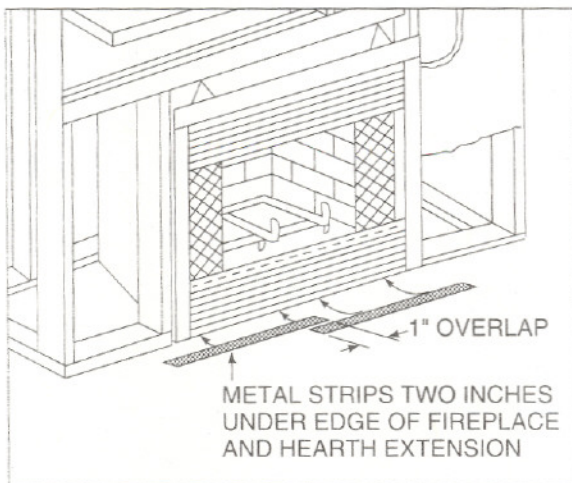


Figure 10
Positioning the metal strips

WARNING

CAREFULLY FOLLOW THE INSTRUCTIONS FOR ASSEMBLY OF THE PIPE AND OTHER PARTS NEEDED TO INSTALL THIS FIREPLACE SYSTEM. FAILURE TO DO SO MAY RESULT IN A FIRE, ESPECIALLY IF COMBUSTIBLES ARE TOO CLOSE TO THE FIREPLACE OR CHIMNEY AND AIR SPACES ARE BLOCKED PREVENTING THE FREE MOVEMENT OF COOLING AIR.



STEP 4 - Assembling chimney sections

Attach either a straight chimney section or an offset to the top of the fireplace depending on your installation requirement. Chimney sections are locked together by pushing downward until the top section meets the stop bead on the lower section. When using offsets/returns, the offset and return sections must be secured in place with screws to ensure proper orientation. See Figure 11.

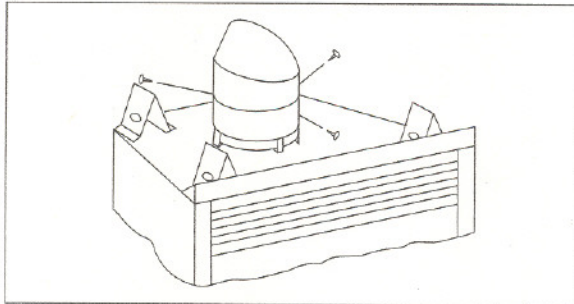


Figure 11
Offset Secured to Fireplace

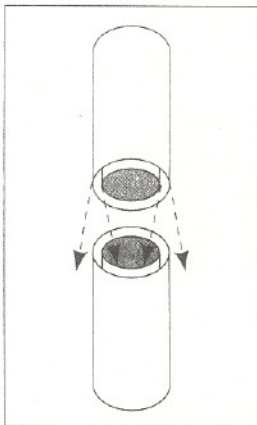


Figure 12
Connecting Chimney Sections

NOTE: The inner flue is placed to the **inside** of the flue section below it. The outer casing is placed **outside** the outer casing of the chimney section below it. See Figure 12.

STEP 5 - Preparing the ceiling for firestop spacers

Mark and cut out an opening in the ceiling for the particular firestop spacer being utilized (17" x 17" for an FS538, or 17½" x 26⅙" for an FS540). Frame the opening with the same dimension lumber used in the ceiling joists.

STEP 6 - Installing the firestop spacers

Install the firestop spacer FS538 (Straight), or FS540 (if a 30° offset is located in the ceiling joist area). Nail the four sides of the firestop spacer to the joists using a minimum of three (3) nails per side.

CAUTION

INNER FLUE AND OUTER LINER SECTIONS CANNOT BE DISASSEMBLED ONCE LOCKED TOGETHER. PLAN AHEAD TO INSURE THE PROPER INSTALLATION HEIGHT IS ACHIEVED WITH THE SELECTED CHIMNEY COMPONENTS.

These firestop spacers are designed to provide the minimum two inch air space required around the chimney. In all situations, the firestop spacers are to be nailed to the ceiling joists from the bottom or fireplace side, EXCEPT when the space above is an insulated ceiling or attic space. In this situation, the firestop spacer must be nailed from the top side to prevent loose insulation from falling into the required two inch air space around the chimney.

Firestop spacers must be used whenever the chimney penetrates a ceiling/floor area.



Figure 13
Installing the firestop spacer

STEP 7 - Installing an AS10 insulation shield

An AS10 insulation shield should be installed when there is a possibility of insulation coming into contact with the factory-built chimney system. The AS10 is installed by positioning it over the vertical chimney section where it penetrates an FS538 firestop spacer. The FS538 will support the AS10. See Figure 14 (page 16). When the factory-built chimney penetrates an insulated ceiling at 30 degrees from vertical, an insulation dam should be constructed from plywood or sheet metal. A minimum 2" air space must be provided between the insulation dam and the factory-built chimney system.



STEP 12 - Assembling chimney sections

Continue to add chimney sections through the roof opening, maintaining at least a 2" air space.

STEP 13 - Installing the CAK4

When installing a CAK4 chimney air kit, follow the instructions provided with this accessory. The CAK4 is required in Canada.

STEP 14 - Installing an outside combustion air kit

Install the AK17U outside air if desired or required by local code, using the instructions supplied with the AK17U air kit. The use of outside air is strongly recommended.

In a tightly constructed structure, install an outside air kit on both the left and right hand side of the firebox assembly for optimum performance.

In a tightly constructed structure, install an outside air kit on both the left and right hand sides of the firebox assembly for optimum performance.

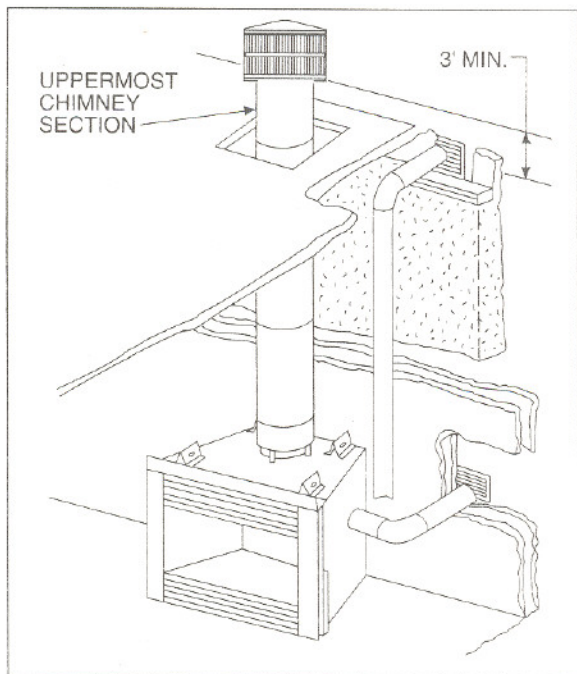


Figure 17
Outside Air Location

NOTE: The outside air kit can terminate at any level with the exception that it must terminate at least three feet below the chimney terminal cap as shown in Figure 17.

STEP 15 - Installing a fan kit (optional)

The FK6 fan kit can only be installed after the electrical junction box has been wired. Follow the instructions supplied with the fan kit for proper installation. It is recommended that you wire the junction box during construction even if fans are not initially desired - this allows for adding a fan kit at a later date. In line with this junction box, you must have an on/off switch or a BC10 Motor Speed Control. To wire the junction box:

Remove the lower grille by removing the (6) screws and lifting it up and outward.

The electrical junction box has been installed on the left side of the fireplace. Remove the junction box cover and the 1" electrical knockout on the outer shell. Insert the conduit through this hole and into the fireplace. Attach the conduit connector (provided in the fastener package) to the end of the conduit.

Attach the conduit with conduit connector to the junction box with the conduit connector lock nut.

Bring the supply wires to the inside of the junction box. Firmly attach the ground wire with the green headed screw (provided in the fastener package) and connect the supply wires using the wire nuts provided in the fastener package.

Replace the junction box cover.

Proceed to installation of the fan kit if desired. See the instructions supplied with this kit for details.

Replace the lower grille.

WARNING

DISCONNECT POWER BEFORE STRIPPING OR JOINING ANY SUPPLY WIRES. ONLY PERSONS QUALIFIED FOR MAKING ELECTRICAL INSTALLATIONS (ELECTRICIANS) AS RECOGNIZED BY LOCAL OR NATIONAL GOVERNMENTAL BODIES SHOULD ATTEMPT TO MAKE THE INCOMING SUPPLY WIRE CONNECTIONS.

EDGES ARE SHARP. HAND PROTECTION IS RECOMMENDED. RECHECK ALL FASTENERS BEFORE LEAVING JOB.

NOTE: A BC10 motor speed control kit is available for use with this fan kit. Refer to the instructions packed with it for proper installation. If a speed control option is desired, it is recommended that you use the BC10 kit to insure proper function.



STEP 17 - Completion of fireplace enclosure

Complete the fireplace enclosure, allowing space for outside air ducts and gas piping if desired. Electrical wiring should not come in contact with the unit. A minimum clearance of 3/4" must be maintained between the fireplace sides and the enclosure as well as the fireplace back and the enclosure. See Figure 4 for framing details.

STEP 18 - Provisions for an optional gas log set

Knockouts are provided on both sides of the fireplace to allow for connection of a certified gas log lighter or a decorative gas appliance with a maximum input of 100,000 BTU/hr. incorporating an automatic gas shut-off device and complying with the Standard for Decorative Gas Appliances for Installation in Vented Fireplaces, ANSI Z21.60. The decorative gas appliance should be installed in accordance with the National Fuel Gas Code, ANSI Z223.1-1980. The side refractories are designed to allow 1/2" iron pipe to pass through. Use a non-combustible sealant to seal any opening between the gas pipe and the refractory on the inside. Repack the insulation removed, to seal around the gas pipe where it exits the side of the fireplace. A minimum 1 1/2" air clearance must be provided to the 1/2" iron pipe. See Figure 18.

STEP 19 - Installing the glass doors

If desired, or required by local building codes, install the glass doors using the instructions supplied with the particular set of doors you have chosen.

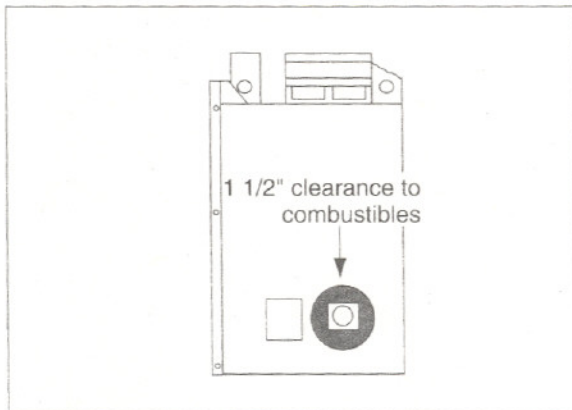


Figure 18
Gas knockout location

CAUTION

WHEN USING A GAS LOG SET, THE FIREPLACE DAMPER MUST BE SET IN THE FULLY OPEN POSITION. THIS ENSURES A PROPER VENTING OF COMBUSTION PRODUCTS.



WARNING

THIS FIREPLACE WAS NOT TESTED BY THE FIREPLACE MANUFACTURER FOR USE WITH AN UNVENTED GAS LOG HEATER. DO NOT INSTALL AN UNVENTED GAS LOG HEATER IN THIS FIREPLACE UNLESS IT HAS BEEN SPECIFICALLY TESTED AND LISTED BY UNDERWRITERS LABORATORIES INC FOR USE IN THIS SPECIFIC MODEL FIREPLACE. UNLESS THE UNVENTED GAS LOG HEATER IS TESTED AND LISTED FOR USE IN THIS FACTORY-BUILT FIREPLACE, A FIRE HAZARD MAY BE CREATED THAT CAN RESULT IN A STRUCTURE FIRE.

STEP 20 - Positioning the hearth extension

Position and secure the hearth extension over the protective metal strips that have been placed partially under the firebox front. See Figure 19. These strips should be protruding approximately two inches from under the fireplace front. Seal the crack between the hearth extension and fireplace with a non-combustible sealant.

STEP 21 - Applying finishing materials on the hearth extension

Apply the non-combustible finishing material of your choice to the hearth extension. **Do not install combustible materials over the black face of the fireplace. This poses a safety hazard and may start a fire.** You may only use non-combustible material over the black face of the fireplace. Refer to Figure 7 for combustible material information.

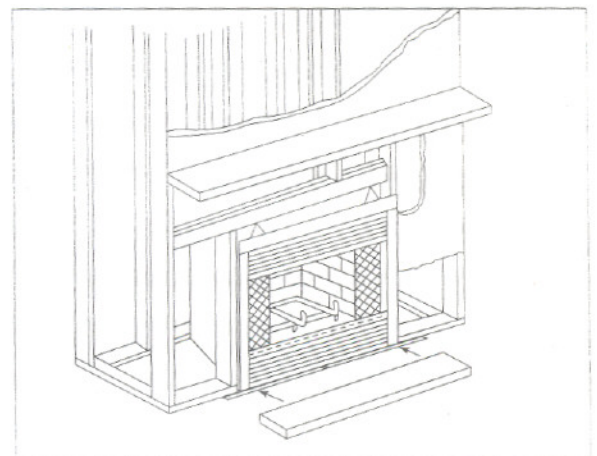


Figure 19
Positioning the hearth extension

CONSTRUCTING A CHASE

A chase is a vertical box-like enclosure built around the chimney and firebox. A chase may be constructed for the fireplace *and* chimney or for the chimney only. It is most commonly constructed on an outside wall.

In cold climates, it is recommended that the chase floor be insulated using batt type insulation between the floor joists.

Three examples of chase applications are shown in Figure 20.

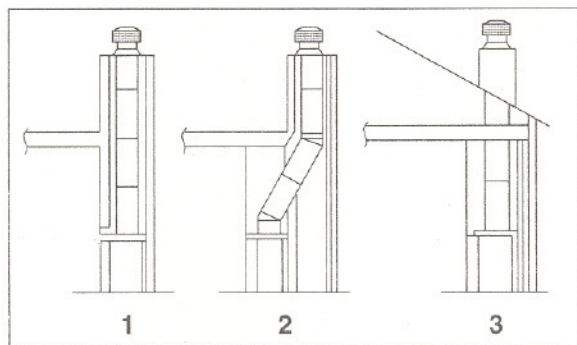


Figure 20
Chase Constructions

1. Fireplace and chimney enclosed in an exterior chase.
2. Chimney offset through exterior wall and enclosed in chase.
3. Chase constructed on roof.

Materials for the chase

The chase is constructed using framing materials much the same as the walls in your home. A variety of materials may be used including brick, stone, veneer brick, or standard siding materials.

In constructing the chase, several factors must be considered.

1. Maintain a 3/4" minimum air space around the firebox.
2. Maintain a 2" air space around the chimney.
3. The chase top must be constructed of a non-combustible material.
4. In cold climates a firestop spacer should be installed in an insulated false ceiling at the 8 foot level above the firebox assembly. This prevents heat loss through the fireplace.

5. In cold climates, the walls of the chase should be insulated to the level of the false ceiling as shown in Figure 21. This will help prevent heat loss from the home around and through the fireplace.

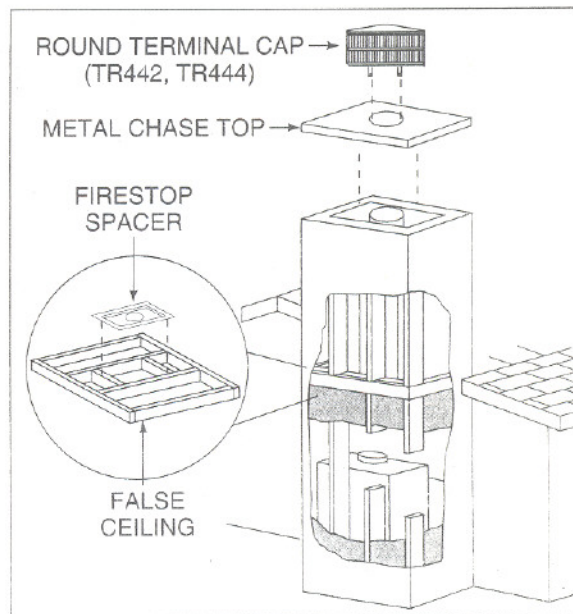


Figure 21
Chase Assembly

WARNING

INSTRUCTIONS FOR INSTALLATION OF THE CHASE TOP, STORM COLLAR AND TERMINAL CAP ARE PACKAGED WITH THESE PARTS. TO AVOID DANGER OF FIRE, ALL INSTRUCTIONS MUST BE STRICTLY FOLLOWED, INCLUDING THE PROVISION OF AIR SPACE CLEARANCE BETWEEN CHIMNEY SYSTEM AND ENCLOSURE. TO PROTECT AGAINST EFFECTS OF METAL CORROSION ON THOSE EXPOSED TO THE WEATHER, WE RECOMMEND THAT THE CHASE TOP AND TERMINAL CAP BE PAINTED WITH A RUST RESISTANT PAINT.



Installing a terminal cap on a chase enclosed chimney

Construct a chase of desired materials maintaining a minimum 2" air space around the chimney.

WARNING

NEVER INSTALL A SINGLE WALL SLIP SECTION OR SMOKE-PIPE IN A CHASE STRUCTURE. THE HIGHER TEMPERATURE OF THIS SINGLE WALL PIPE MAY RADIATE SUFFICIENT HEAT TO COMBUSTIBLE CHASE CONSTRUCTION MATERIALS TO CAUSE A FIRE.

Install the chimney sections up through the chase enclosure. When using a TR444 round terminal cap, the last section of pipe must extend above the top of the chase cone to allow installation of the storm collar and terminal cap. See Figure 22.

For installations utilizing a telescoping round terminal cap (TR442), the last chimney section must be below the top of the chase top, but not more than 14 1/2" below the top of the chase top flashing collar.

When installing a TS444 Square Termination, the upper most chimney section must be no less than 3" below the top of the chase top or more than 3" above the top of the chase top.

Attach the chase top (CT56) to the top of the chase.

Install the terminal cap, using the instructions provided with it.

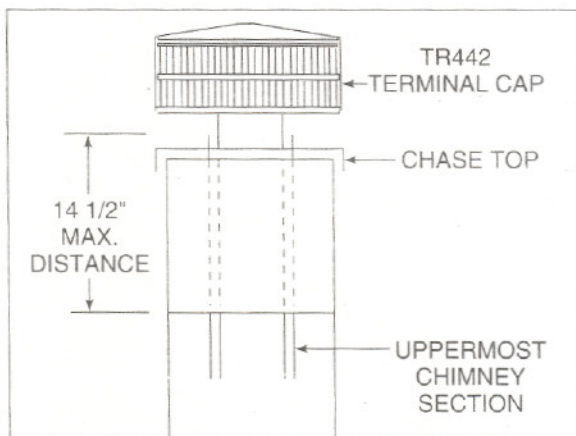


Figure 22
Installing a terminal cap

OPERATING INSTRUCTION

WARNING

DO NOT OPERATE THIS FIREPLACE WITH THE FLUE DAMPER IN THE CLOSED POSITION. COMBUSTION PRODUCTS MUST VENT UP THE CHIMNEY SYSTEM TO PREVENT CARBON MONOXIDE POISONING, AND TO PREVENT HOT COMBUSTION GASES FROM CONTACTING AND OVERHEATING COMBUSTIBLE SURFACES. FAILURE TO OPERATE THIS FIREPLACE WITH THE DAMPER IN THE OPEN POSITION MAY RESULT IN ASPHYXIA-TION OR A STRUCTURE FIRE.

This fireplace is intended to operate as a supplemental heat source for a single room. It is not designed to function as a primary heat source for a structure.

Fireplaces, as well as other woodburning appliances, have been used safely for many years. It has been our experience that most problems are caused by improper installation and operation of the unit. Make certain that installation and operation of the fireplace system is in accordance with these instructions.

It is extremely important that the fire be supervised whenever the fireplace is in use. It is also recommended that an annual inspection be performed on the fireplace system to determine if the flue system needs to be cleaned, or as in the case of any appliance, if minor repairs are required to maintain the system in top operating condition.

INTENDED USAGE. This factory-built fireplace is intended for use with either solid fuel (firewood) or a decorative gas appliance that has been tested and listed to the Standard for Decorative Gas Appliances for Installation in Vented Fireplaces, ANSI Z21.60. **When operating your fireplace, the flue damper must be in the open position.**

This fireplace was not tested and listed for use with an unvented gas log heater. Do not install an unvented gas log heater in this fireplace and operate it with the flue damper in the full closed position unless the unvented gas log has been specifically tested and listed for use in this fireplace by Underwriters Laboratories Inc. Use of an unvented gas log heater in this factory-built fireplace may create a fire hazard that can result in a structure fire.



NOTICE

SAVE AND PASS THESE OPERATING INSTRUCTIONS AND THE INSTALLATION INSTRUCTIONS TO SUBSEQUENT OWNERS. THE INFORMATION PROVIDED IS INTENDED TO NOTIFY AND WARN THEM ABOUT MAKING UNSAFE FUTURE MODIFICATIONS SUCH AS THE ADDITION OF SHELVES OR THE USE OF UNAUTHORIZED PARTS AND REPAIRS.

CAUTION

FIREPLACE OPERATION DOES REQUIRE AIR. DO NOT TAKE AIR FROM OTHER FUEL BURNING APPLIANCES WHICH CAN RESULT IN IMPROPER VENTING (SMOKING) OR AIR DILUTION. ALWAYS PROVIDE ADEQUATE MAKE-UP AIR.

STARTING THE FIRE. Check the flue damper to be certain it is in the full open position. Place crumpled or twisted paper under the fireplace grate. Loosely arrange kindling and small pieces of wood to form a layer above the paper. Light the paper and add small pieces of wood until a hot bed of embers has been established. At this point add progressively larger pieces of wood until you are able to position 4" diameter split logs as shown in Figure 24.

When first lighting your fireplace, it may be necessary to pre-warm the flue to establish a draft. This is done by holding a rolled up piece of burning newspaper under the flue damper for a few moments. This will prevent smoke spillage during start-up.

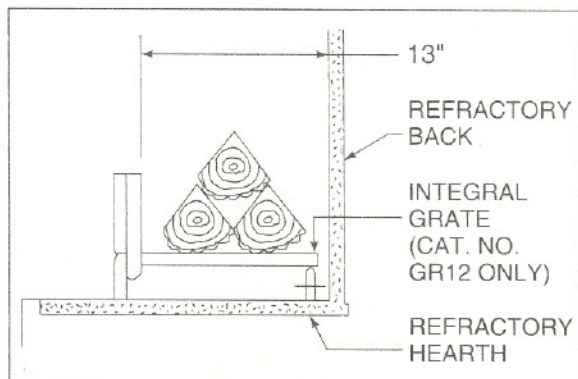


Figure 24
Sectional View of Fireplace

Firewood should be seasoned for at least 6 months before it can be burned as a fireplace fuel. Improperly seasoned (green or wet) wood will cause the fireplace to smoke, will allow creosote deposits to rapidly buildup in the chimney system and may cause roof stains to develop.

Fuel products with abnormal burning characteristics, including synthetic logs that contain wax binders, scrap lumber, wax or plastic coated cardboard and other highly volatile fuels that burn at excessive temperatures, may cause the fireplace to operate in an unsafe manner. Flammable liquid fuels are explosive and must never be used to start or freshen a fire. Heatilator does not warrant the structural or functional performance of the fireplace system when such synthetic fuels or flammable liquids have been used.

NOTE: When heated for the first several times, the fireplace should be heated gradually to prevent moisture in the refractory from causing cracks and to allow binders in the insulation to dissipate. You will notice an industrial odor during the first few fires that are burned. This is considered to be normal.

Use only a solid wood fuel or a listed Heatilator gas log set. Do not use a fireplace insert or products not specifically tested and listed for use in this fireplace.

Use common sense when burning this fireplace. The fire must be built on the fireplace grate, without danger of the burning fuel falling out of the firebox.

CAUTION

NEVER USE GASOLINE, GASOLINE-TYPE LANTERN FUEL, KEROSENE, CHARCOAL LIGHTER FLUID, OR SIMILAR LIQUIDS TO START OR 'FRESHEN UP' A FIRE IN THIS FIREPLACE. KEEP ALL SUCH LIQUIDS WELL AWAY FROM THE FIREPLACE WHILE IT IS IN USE TO AVOID THE RISK OF A HOSTILE FIRE.

DISPOSAL OF ASHES. Ashes should be placed in a metal container with a tight-fitting lid. The closed container of ashes should be placed on a non-combustible floor or on the ground, well away from all combustible materials, pending final disposal. If the ashes are disposed of by burial in soil or otherwise locally dispersed, they should be retained in the closed container until all embers have thoroughly cooled.

GLASS DOORS. Most efficient fireplace operation using glass doors is with the doors open. When the doors are open, the screen must be closed. Only HEATILATOR glass doors, model numbers GT42A1, GT42B1, C1242A, C1242B, C1242C, C2242A, C2242B, C2242C or P1242B may be used.



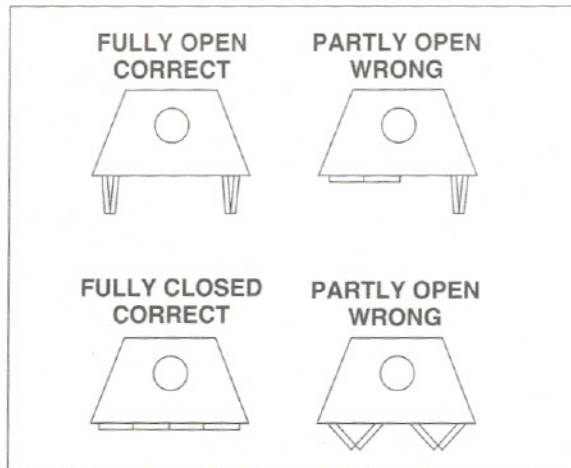


Figure 25
Recommended Operating Positions of Doors

WARNING

FIREPLACES EQUIPPED WITH DOORS SHOULD BE OPERATED ONLY WITH DOORS FULLY OPEN OR FULLY CLOSED. IF DOORS ARE LEFT PARTIALLY OPEN, GAS AND FLAME MAY BE DRAWN OUT OF THE FIREPLACE OPENING, CREATING THE RISK OF BOTH FIRE AND SMOKE.

FAN KIT. A HEATILATOR FK6 heat circulating fan may be used with this fireplace. An external ON/OFF switch must be provided, or a BC10 motor speed control may be used.

WARNING

CONTINUED OVER-FIRING CAN PERMANENTLY DAMAGE YOUR FIREPLACE SYSTEM. EXAMPLES OF OVER-FIRING ARE:

1. THE "NORMAL LOG FIRE" SHOULD BE CONTAINED IN THE GRATE, WITH THE LENGTH OF LOGS NO GREATER THAN THE BACK WALL OF THE FIREPLACE.
2. THE FOLLOWING MATERIALS MUST NOT BE USED IN THIS FIREPLACE: QUANTITIES OF SCRAP LUMBER, PINE BRANCHES, PROCESSED FIRE LOGS AND FIRE STARTERS, OR CARDBOARD BOXES WHICH EXCEED THE VOLUME OF THE "NORMAL LOG FIRE". THESE MATERIALS PRODUCE MANY SPARKS AND MUST NOT BE USED.

Before starting a fire in your DX Series fireplace, use the following check list:

FLUE DAMPER. The flue damper is operated by moving the handle from left to right, which should place the damper in a fully open position. Verify this by looking up from the inside of the firebox. Always operate this fireplace with the damper fully open. Please note, down drafts, obstructions, damage or poor (wet) fuels can cause smoke spillage.

CHIMNEY INSPECTION. Visually inspect the chimney internally for obstructions and construction damage. Flue pipe joints and seams must be continuous and mechanically tight. In a used chimney, additional inspection is needed for creosote build-up which is the formation of a flammable sediment.

When wood is burned slowly, it produces tar and other organic vapors, which combine with expelled moisture to form creosote. The creosote vapors condense in the relatively cool chimney flue of a slow-burning fire. As a result, creosote residue accumulates on the flue lining. When ignited, this creosote makes an extremely hot fire.

The chimney should be inspected at least twice a year during the heating season to determine if creosote build-up has occurred.

If creosote has accumulated, it should be removed to reduce the risk of a chimney fire.

CHIMNEY CLEANING. If you do detect a build-up of creosote, contact a qualified chimney sweep or clean it yourself. To do this, perform the following steps:

1. Open the damper.
2. Hang a damp sheet across the fireplace opening to stop dirt and soot from entering the room.
3. Remove the Terminal Cap or Housing Top. See Figure 26.
4. Clean with a stiff nylon brush attached to a pole **OR** tie a rope to a burlap bag filled with straw and several small stones or sand. Work up and down the flue until clean.
5. Replace the terminal cap or housing top.



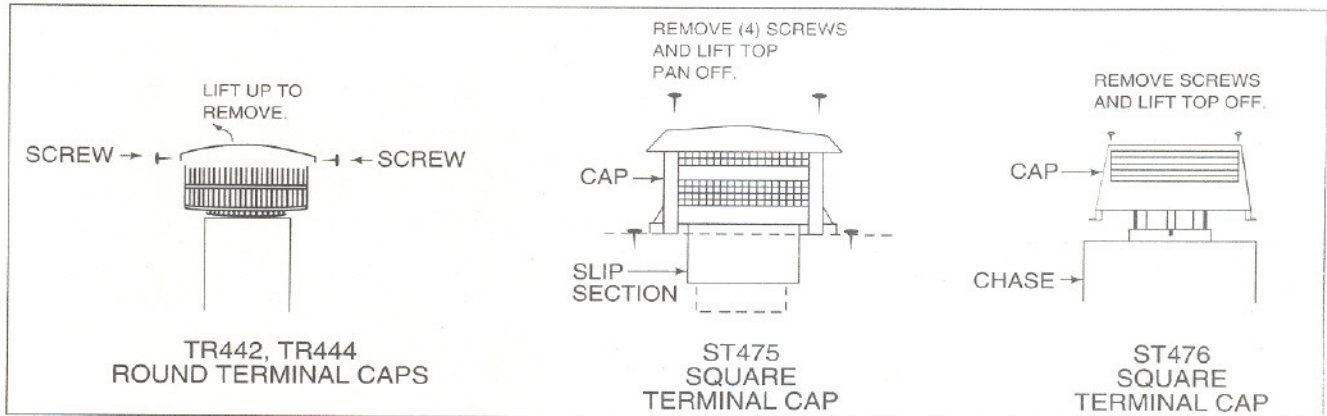


Figure 26
Terminal Caps

WARNING

A CHIMNEY FIRE CAN PERMANENTLY DAMAGE YOUR CHIMNEY SYSTEM. THIS DAMAGE CAN ONLY BE REPAIRED BY REPLACING THE DAMAGED COMPONENT PARTS. CHIMNEY FIRES ARE NOT COVERED BY THE LIMITED WARRANTY AND BUYER PROTECTION PLAN.

FIRESCREEN. A firescreen is always provided to control sparks. It must be closed whenever the fireplace is in use. Glass doors or firescreens must not be used to hold burning material inside the fireplace. Only those glass door units specifically tested and listed for use with the specific fireplace model should be used. Screens should be closed when the glass doors are closed.

CLEAR SPACE NEAR FIREPLACE. The hearth extension must extend at least 20 inches to the front and 12 inches to the sides of the firebox opening. Combustible materials must not be stored in this area. Combustible walls perpendicular to the front of the fireplace must be at least 24 inches from the fireplace opening. Room furnishings such as drapes, curtains, chairs, or other combustibles must be at least 4 feet from the open front of the fireplace.

GRATE. The factory installed integral grate must be used to hold the logs from falling out of an open fireplace and to allow air to pass between the burning logs. It is important to keep the fire off the hearth and to allow the ashes to collect beneath the fire, thereby forming a layer of additional heat protection. See Figure 24. Use only model number GR12 integral grate for replacement.

CAUTION

WHEN LEFT CLOSED WHILE BURNING YOUR FIREPLACE, FIRESCREENS AND GLASS DOORS WILL BE HOT. HANDLE WITH CARE.

NEGATIVE AIR PRESSURE WITHIN THE STRUCTURE. This fireplace will operate correctly only if adequate ventilation is provided to allow proper draft to the fireplace system. Heatilator assumes no responsibility for the improper performance of the fireplace system caused by inadequate draft due to environmental conditions, downdrafts, tight sealing construction of the structure, or mechanical exhausting devices which create a negative air pressure within the structure where the fireplace is located.

OUTSIDE AIR KIT OPERATION. A damper control handle allows the individual control of the outside air inlets if your fireplace is equipped with this option. Use of outside air for combustion is highly recommended to conserve heated air within the structure and to provide make up air to keep the fireplace venting properly.



Attention

FIREPLACE INSTALLER

*Please return these
Operating & Installation
Instructions to the
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for Consumer Use*

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